AAR PDR Issues and Lessons Learned FY 13 Program

7 June 2011

US Army Corps of Engineers
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Agenda

- Statistical review of PDR Submissions
- Common issues and errors with PDR’s
- Programmatic or Process Issues
- Way Ahead

PDR Submission Statistics

- 114 total PDRs were submitted.
  - Average number of revisions required for submitted PDRs = 1
  - 1 project required 5 Returns for Correction (RFC) before approval
  - 15 projects required 3 or more RFCs before approval
- Average time to complete a PDR from date of code release = 3.8 months
- The longest time required to complete a PDR from code release = 7 months
- One PDR was submitted and approved prior to a code 3 release

PDR Submission Statistics

- Scope Discrepancies
  - 39 Scope discrepancies reported; 13 resolved with comment and 26 active scope discrepancies were approved.
- 3 projects had multiple approved scope discrepancies which increased project delays significantly.
- Verbal Scope Discrepancy Approval/Concurrence by ACSIM and IMCOM averaged 10 days.
- Delay in written Scope Discrepancy endorsements by ACSIM and IMCOM in PDRS for 7 projects, resulting in a average project delay of 18 days. Average time for written Approval/Concurrence averaged 25.8 days.
- 14 projects that had both PC's and scope discrepancies identified

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Common Issues and Errors with PDR Submissions

- Submitting PDR for review that is not complete
  - Lacks required data elements found on Review Checklist
  - Requires entering a “Yes” in PDRS, that a data element was complete, even though the data element was actually missing or incomplete.
- Submitting PDR that includes a Scope Discrepancy without completing or starting the Scope Discrepancy Approval process.
- Projects containing facilities with applicable Department of the Army Standards and/or Standard Designs submitted without COS validation and concurrence.

Common Issues and Errors with PDR Submissions

- PDRS Scope Chart not adequately completed with submittal
  - Scope chart did not include all Primary Facility line items or their associated sublines
  - Scope chart did not correct inaccurate category codes from original 1391
  - Scope chart did not include a definitive Unit of Measure on required line items (i.e. Renovate Bldg…LS…..$5M)
- COS Concurrence lacked quantified scope for each facility type (i.e. COS concurs with PDR submitted on 1/1/11 v.s. COS concurs with XYZ facility at 1,234 SF)

Common Issues and Errors with PDR Submissions

- Scope Discrepancies were submitted with little or no explanation of the driver for the change. Inadequate or no justification documentation was provided (i.e. No evidence of approved manning document/requirements)
- Scope Discrepancies for non-standard facilities submitted without any indication of what criteria was used to develop revised scope.
- Projects that included renovation of a “standard design” facility type that were not coordinated with the applicable COS (COS’s are required to review renovation projects to ensure maximization of the Army Standard intent.)
- Scope Discrepancies presented where only justification provided was “the installation wants/needs additional space”.

Common Issues and Errors with PDR Submissions

- PDRs that lack adequate or definitive information for a Code 3 level submittal (15% design).
  - Examples:
    - "All utilities will be adequate to support this project"
      - Requirements from PDR Instructions: The following information should be included for each required utility: **proposed utility connection points, size and capacities of existing utilities, estimated size and capacities of new utilities needed for the project**.
    - "Furniture and Equipment is an installation responsibility and is included in the 1391."
      - Requirements from PDR Instructions: **The PDR must contain a definitive statement that the PDT considers the Furnishings and Equipment cost shown in the 1391 are adequate. If the PDT determines that these cost are not adequate a revised listing and cost for these items must be included in this section of the PDR.**
    - "The Designer of the project should consider how the project can achieve LEED Sliver"
      - Requirements from PDR Instructions: Include a description of how sustainable design and energy conservation will be achieved. If a Preliminary LEED checklist is not included in the approved DD Form 1391 from the Planning Charrette, a Preliminary LEED checklist should be completed as part of the PDR.

Common Programmatic Issues of the PDR Process

- Confusion concerning the “correct” 1391 to be used by the Geographic District as the basis of design
  - Some PDTs were presented with multiple versions of 1391’s
    - Attaching “approved” 1391’s to at least the original Design Directive would eliminate confusion over what the District is authorized to design
- Some PDTs were confused when a Design Directive cited a PA that did not match the PA of the 1391 in the PAX System.
  - PDTs should design to the scope included on the “approved 1391” and the cost will be adjusted per the 3086 process.
  - Scope should not be arbitrarily reduced to meet the PA from the design directive.
    - Attaching “approved” 1391’s to at least the original Design Directive would eliminate confusion over what the District is authorized to design
    - Ensuring PDT understands intent of the PDR Process (validation

Common Programmatic Issues of the PDR Process

- Lack of consistency in process when changes to the “approved 1391” are required.
  - Some 1391’s were returned to the installation for revision (circumvents the Scope Discrepancy Process)
  - Some projects handled changes via the Scope Discrepancy Process)
    - Scheduled for discussion with ACSIM and IMCOM to review impacts
- Project Definition Review System (PDRS) newly implemented this year.
  - Some PM’s did not participate in the on-line training and initially had issues utilizing the system
  - Some individual users (typically outside the Corps) had difficulty or were unable to access the system.
    - Offer on-line training sessions again for refresher or new PM’s
    - Work with CERL to resolve access issues for select users.
    - CERL has added instructions and included all guidance as part of the PDRS site.

Common Programmatic Issues of the PDR Process

- Inconsistency in level of review:
  - Projects that went through the Scope Discrepancy Process often included review of project features (master planning, design details, project packaging, etc).
  - Projects that did not have formal Scope Discrepancies requiring review by ACSIM and IMCOM were not reviewed at this level of detail.
    - Discuss with ACSIM, IMCOM, and ACOMs to develop a process to scrub and review 1391's for appropriate packaging and Master Planning issues prior to release of design directives.
    - Consistently review projects with understanding the level of design detail is no more than 15% at this stage.

Common Programmatic Issues of the PDR Process

- Provide definitive guidance on when use of an "Abbreviated PDR" is authorized.
  - Certain projects were authorized to submit and "Abbreviated PDR" (PDR Lite). Other PDTs submitted Abbreviated PDR's without prior approval.
    - Need to provide definitive guidance on which projects can utilize this method.
- Multiple Districts voiced concern over lag time in Code Release from ACSIM (that is tracked in PDRS) v.s. Design Directive release by HQUSACE to the Geographic District.
  - 14-20 days average between ACSIM Code release and Design Directive issuance.
    - Discuss potential resolutions with HQUSACE RITs

Review Checklist – Required Elements

PDRS Checklist for Project Number: 12345 (Id=123)

Item	Completed?	Reviewer Comment
COS Validation:	Y/N or NA	Quantified COS concurrence with scope must be included in PAX system
Scope Discrepancy Approval:	Y/N or NA	If a Scope Discrepancy is submitted it must be approved by ACSIM prior to submission of the PDR
Scope Validation for non-standard project:	Y/N or NA	District must validate that scope of non-standard facilities. This validation must include what criteria the scope was based on and show a breakout of the space by functional area.
At least one of the above items must be a YES before you can continue to the next step.		
*IMCOM Regional Director Site Approval:	Y	PDR must include an actual copy of the approved and signed IMCOM RD letter for this project.
*Completed Tab B:	Y	PDR must contain an updated Tab B in accordance with the templates provided in the PDR Instructions. Stating that Tab B can be found in the 1391 is not adequate. A definitive statement that the Tab B in the 1391 is up to date or a revised Tab B must be provided.

Review Checklist – Required Elements (continued)

*Environmental Data (NEPA):	Y	Provide a general summary statement indicating what specific NEPA (National Environmental Policy Act) documentation is required (whether EIS, REC or EA), **current status, definitive timeline for completion** and way ahead, other environmental issues, and identification of any required waivers and permits
*Validation of Furnishing and Equipment cost:	Y	**The PDR must contain a definitive statement that the PDT considers the Furnishings and Equipment cost shown in the 1391 are adequate. If the PDT determines that these cost are not adequate a revised listing and cost for these items must be included in this section of the PDR**
*Utility Capacity and connection points addressed:	Y	The following information should be included for each required utility: **proposed utility connection points, size and capacities of existing utilities, estimated size and capacities of new utilities needed for the project.** Utility connection points can be shown on an attached sketch.
**All of these items (above) must be YES before you can continue to the next step.*		
LEED Assessment** **Project must meet LEED v3 standards to select YES	Y	PDR must Include a description of how sustainable design and energy conservation will be achieved. If a Preliminary LEED checklist is not included in the approved DD Form 1391 from the Planning Charrette, a Preliminary LEED checklist should be completed as part of the PDR.
Latest PDRI Score***:	0	If a PDRI was developed at a Planning Charrette the score should be included in the column to the left and noted in the PDR Report. If a PDRI

Way Ahead

- Ensure PDT's understand design authorities and are familiar with current PDR guidance.
- Work with ACSIM, IMCOM, and ACOM's to correct process inconsistencies
- Discuss "1391 Review/Clean up" issues with ACSIM and IMCOM
- Offer PDRS on-line training sessions again this year.
- Ensure PDT's understand the PDR Review Checklist and what level of information is required for approval.

USACE POCS:

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CELRL-ED-D-A

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HNC Contractor

ENG3086 Review and Approval Process

7 June 2011

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Issue #1 - ENG3086 Process - Schedule

- **What was suppose to happen?**
  - The schedule indicated that the all the ENG3086's were to be submitted by1 Feb and approved by1 Mar.
- **What happened?**
  - Very few ENG3086's were submitted early (only 8 were submitted by January 15) and less than half (44%) were submitted by 1 Feb. Only 28% of the ENG3086's were approved (Ready Pile) by 1 Mar. All ENG3086's were returned to the District for one revision; about 50% were returned 2 or more times.
- **Why?**
  - The ENG3086 submittal and approval dates are heavily dependent on the approval of the final PDR. Many PDR's were submitted and approved very late or required scope changes very late in the process.
  - The 30 days allocated for submittal, review, correction and approval of 114 ENG3086's was inadequate.
  - Some ENG3086's were submitted weeks after the final PDR was approved.
  - There were delays due to the marked-up Tab B's not being submitted and updating the DD1391 Tab B.
- **Recommendations**
  - Make process changes which will facilitate an earlier submittal and approval of the PDR's.
  - Allow more than 30 days in the schedule for submittal, review, correction and approval of the ENG3086's.
  - Complete the expansion of the PDRS web site to allow HNC to upload the ENG3086 Status Report daily.
  - If the design code release dates are staggered; the ENG3086 should also be staggered accordingly.
  - Add a Tab B module to the PAX software to allow Districts to enter their Tab B data directly.

Issue #2 - ENG3086 Process - Quality

What was suppose to happen?

- The ENG3086's were to be submittal by the District matching the PDR approved scope and requiring limited comments and corrections by the ENG3086 review team.

What happened?

- Some ENG3086's were submitted before the final PDR scope was approved.
- Many ENG3086's were submitted with scope that did not match the PDR approved scope.
- All ENG3086's submitted required at least one review/comment/correction cycle. Some required several.

Why?

- Some of the ENG3086 preparers had limited or no previous experience preparing ENG3086's.
- Some of the ENG3086 preparers had limited or no formal ENG3086 training.
- The FY13 ENG3086 instructions were issued late; well after the ENG3086 preparation had begun.
- The FY13 ENG3086 instructions did not fully cover all the ENG3086 requirements.

Recommendations

- The ENG3086 instructions should be revised to include several samples ENG3086's and provide better guidance in the areas which have generated numerous review comments in previous cycles.
- The ENG3086 instructions should be published early, available on-line and revised as needed to reflect any changing requirements.
- Provide limited informal webinar based ENG3086 training. Districts should be given the option to have an onsite 1 or 2 day workshop with an HNC 3086 reviewer.

Issue #3 - ENG3086 Process – Scope

- **What was suppose to happen?**
  - The final approved PDR was intended to be the basis of the ENG3086 by establishing the final Primary Facilities scope before the ENG3086 was completed and submitted by the District.
- **What happened?**
  - There was inconsistency in review and scope validation of certain PDR items: SDD/EPAct05, AT/FP, EMCS, IDS, Special Foundations, Seismic Upgrades, Historical Features and Info Systems.
  - Most Primary Facility sub-lines were not verified or listed on the final PDR Approved Scope Table.
  - Descriptions were not verified for buildings with CATCD's that can apply to multiple building types
  - Numerous building scope issues were encountered very late into the ENG3086 approval process when ACSIM / IMCOM first saw the project scope on the ENG3086.
  - Numerous scope issues involving IDS and generators were encountered.
  - Numerous problems were encountered in deciphering the COS's scope approval in the PAX system.
- **Why?**
  - The Primary Facility line items which were to be validated for scope by the PDR reviewer was not well defined.
  - Which facility types are allowed to have IDS and back-up generators was not well defined.
  - The information required to be entered into PAX by the COS to validate the scope is not structured or well defined.

Issue #3 con't - ENG3086 Process – Scope

► Recommendations

- The Primary Facility line items and subline items for which the PDR reviewer is responsible for reviewing and validating the scope should be better defined.
- The scope of the Primary Facility sublines should be reviewed, validated and listed on the final PDR Approved Scope Table.
- The Primary Facility description should be reviewed, validated and listed on the final PDR Approved Scope Table.
- Since the DD1391's form the basis for defining the project scope; more focus should be placed on developing higher quality 1391's. The DD1391's should be thoroughly scrubbed to remove (or add) any critical errors before the PDR process begins.
- ACSIM and IMCOM should buy into the PDR Primary Facility scope for all projects during the PDR validation process; not just the projects with scope discrepancies.
- Better guidance should be developed by ACSIM as to which facility types can have IDS or back-up generators.
- The area of the PAX Sys where the COS enters their scope validation should be changed to a table format and require the following data: CATCD, description, qty, UoM, name of person validating the scope and date of scope validation.
- The HNC 3086 team should be made available to do cursory reviews of the 1391's prior to the District beginning their development of the ENG3086.

Emerging Issues/Changes & Directions Needed in the ENG3086 Process

► Issues & Needed Directions/ Guidance

- **ISSUE-1**:
  - Each COS is incorporating Primary Facilities SIZE (Square Footage) increase to their respective DD1391 Templates w/o Centralized Directions & Overview.
  - Could result in significant Scope and Cost Increase for FY 14 and future projects, e.g., Trainee DFAC show 8% scope increase.
- **GUIDANCE NEDED** –
  - HQUSACE Level Guidance & Monitoring for Consistency among Different COS's Size Calculation Methods.
  - ACSIM's Concurrence on Cost Impact
- **ISSUE- 2**:
  - Lacks Guidance on how to Select Best/Optimum Combination of Sustainability & Energy Enhancing Features Listed in ECB 2011-1, Subject – Hi-Performance Energy & Sustainability Policy, and
  - Lacks Guidance on how to Estimate extra costs for Incorporating the Selected Feature
- **GUIDANCE NEEDED** -
  - On items as Stated above in Issue-2
  - Will the Programmed Cost Allowance Continue to be 2% of Primary Facility Costs for full compliance w/ Sustainability/Energy Measures in FY14, when detailed cost break-out is not available at ENG3086 Submittal?
  - Better guidance should be developed by Sustainable/Energy Experts in co-ordination w/Cost Engineers as to what detailed break-out items by Feature are to be submitted for detailed Cost Justification.
- **ISSUE- 3:**
  - Some COSs are updating and/or developing new Standards without Notifying and re-Computing Unit Costs in Coordination w/ HNC/HQUSACE Cost Engineering POCs

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ENG3086 POC's

- Technical requirements for development and submission of the ENG Form 3086 should be directed HNC or Ami Ghosh.

- HQUSACE POC: Ami Ghosh; (202)761-7503
- HNC POC: Brad Wilkes; (256)895-1855
- HNC POC: Kelton Pankey; (256)895-1858